

REMARKS

Upon entry of this amendment, claims 1-15, 17, 19 and 20 are all the claims pending in the application. Claims 16 and 18 have been canceled by this amendment.

I. Claim Rejections under 35 U.S.C. § 103(a)

Claims 1-10, 13 and 15-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Zhou et al. (U.S. 6,278,724) in view of Nakamura et al. (U.S. 7,023,940).

Claim 1, as amended, recites the feature of a correction value determination section for retaining, with a timing at which a specific pattern contained in the unique word is detected, a phase correction value calculated by the correction value calculation section. Applicants respectfully submit that the combination of Zhou and Nakamura does not teach or suggest at least this feature of claim 1.

Regarding Zhou, Applicants note that this reference discloses the use of a signal reception apparatus which receives spread spectrum signals in each of which a pilot symbol block and an information symbol block appear alternately (see col. 6, lines 32-36 and Fig. 10a). As disclosed in Zhou, during a time interval of the last information symbol of the information symbol block, phase error calculators and phase correction vector generators are refreshed (see col. 7, lines 3-5).

Thus, in Zhou, it is clear that the refreshing of the phase correction vector generators, which are responsible for generating phase correction vectors, takes place during a time interval of the last information symbol of the information symbol block.

As noted above, however, claim 1 has been amended herein so as to recite the feature of a correction value determination section for retaining, with a predetermined timing at which a

specific pattern contained in the unique word is detected, a phase correction value calculated by the correction value calculation section.

Thus, in view of the foregoing, Applicants respectfully submit that while Zhou discloses the ability to refresh phase correction vector generators during a time interval of the last information symbol of the information symbol block, that Zhou does not disclose or in any way suggest that a phase correction value is retained with a predetermined timing at which a specific pattern contained in the unique word is detected.

In view of the foregoing, Applicants respectfully submit that Zhou does not disclose, suggest or otherwise render obvious at least the above-noted feature recited in amended claim 1 of a correction value determination section for retaining, with a timing at which a specific pattern contained in the unique word is detected, a phase correction value calculated by the correction value calculation section.

Further, Applicants respectfully submit that Nakamura does not cure this deficiency of Zhou. In this regard, Applicants note that while Nakamura discloses the ability to demodulate a unique word according to an established synchronization timing (see col. 18, lines 25-28), that Nakamura does not disclose or in any way suggest the above-noted feature of a correction value determination section for retaining, with a timing at which a specific pattern contained in the unique word is detected, a phase correction value calculated by the correction value calculation section, as recited in amended claim 1.

In view of the foregoing, Applicants respectfully submit that the combination of Zhou and Nakamura does not teach, suggest or otherwise render obvious all of the features recited in claim

1. Accordingly, Applicants respectfully submit that claim 1 is patentable over the cited prior art, an indication of which is kindly requested. Claims 2-10, 13 and 15 depend from claim 1 and are therefore considered patentable at least by virtue of their dependency.

Regarding claims 17 and 19, Applicants note that each of these claims has been amended so as to recite the feature of a correction value determination section for retaining, with a timing at which a specific pattern contained in the unique word is detected, a phase correction value calculated by the correction value calculation section.

For at least similar reasons as discussed above with respect to claim 1, Applicants respectfully submit that the combination of Zhou and Nakamura does not teach, suggest or otherwise render obvious such a feature. Accordingly, Applicants submit that claims 17 and 19 are patentable over the cited prior art, an indication of which is kindly requested.

Regarding claim 20, Applicants note that this claim has been amended so as to recite the feature of generating a frame-structured data by adding, in front of data to be transmitted which is split into units of a predetermined length, a preamble which alternates from symbol to symbol, and a specific pattern selected so as not to allow a predetermined length of symbol-to-symbol alternations to occur even in the presence of a symbol error. Applicants respectfully submit that the combination of Zhou and Nakamura does not teach or suggest such a feature.

Regarding Nakamura, which was relied on by the Examiner in the Office Action for disclosing the above-noted feature, Applicants note that this reference discloses a preamble pattern that periodically alternates between positive and negative (see col. 3, lines 32-36).

Applicants respectfully submit, however, that while Nakamura discloses a preamble

pattern that periodically alternates between positive and negative, that Nakamura does not disclose or in any way suggest the feature of a specific pattern that is selected so as not to allow a predetermined length of symbol-to-symbol alternations to occur even in the presence of a symbol error, as recited in claim 20. Further, Applicants respectfully submit Zhou fails to cure this deficiency of Nakamura.

In view of the foregoing, Applicants respectfully submit that the combination of Zhou and Nakamura does not disclose, suggest or otherwise render obvious the above-noted feature recited in claim 20 of generating a frame-structured data by adding, in front of data to be transmitted which is split into units of a predetermined length, a preamble which alternates from symbol to symbol, and a specific pattern selected so as not to allow a predetermined length of symbol-to-symbol alternations to occur even in the presence of a symbol error.

Accordingly, Applicants submit that claim 20 is patentable over the cited prior art, an indication of which is kindly requested.

II. Allowable Subject Matter

Applicants acknowledge that the Examiner has indicated that claims 11, 12 and 14 contain allowable subject matter and would be allowable if rewritten in independent form.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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